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JAPANESE IONOSPHERIC DATA - 1943

The attached Tables give values of F2-layer critical frequencies observed at three Japanese-controlled ionospheric stations for the year 1943. The data were captured by Major J. S. Kojan, of the Technical Liaison Division, Signal Section, USFET (rear) on an intelligence mission to Ried, Upper Austria, in July 1945.

Ried was the place where the Zentralstelle für Funkberatung, the German IRPL, was located at the time of the surrender of Germany. Interrogation of personnel revealed that the attached data were the only Japanese ionospheric data in the possession of the Zentralstelle. The Japanese regarded their ionospheric data as highly secret, and apparently released as little as possible to the Germans.

The stations were located on the southern end of Sakhalin I., at 46.9°N , 143°E ; on the northwest coast of Honshu, at 35.3°N , 135.0°E ; and in the Palau Is., at 7.7°N , 134°E .

The Palau Is. are nearly on the geomagnetic equator. It is of interest to note that data for the first five months of 1943 resemble those from other geomagnetic equatorial stations like Huancayo, Peru; Kwajalein Atoll; Guam I.; and Tolosa, Leyte; in that they show high midnight values of $f^{\circ}\text{F}_2$, noon dips, and sharp presunrise minima. The last seven months of data from this station are quite different, however, and, in fact, the noon value for December, 8.4 Mc, is much higher than the noon value for January, 6.4 Mc. It is therefore suspected that the data for June-Dec. 1943 are actually from a different location, which is unknown but presumably in some equatorial region.

The data from Honshu appear to resemble data from Tokyo which were published before the war, and are probably authentic.

Although the present data are quite limited, there is enough in them to assist in ionospheric predictions for that part of the E zone. Until and unless further Japanese ionospheric data are captured, the present information will be used as a guide in preparing prediction charts.

(over)

Monthly Average f^oF_2 in Mc

Sakhalin, (46.9°N, 143°E)

1943

Local time	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
00	3.7	3.5	3.9	4.3	4.3	4.1			4.0	3.7	3.6	3.4
01	3.4	3.5	3.8	4.3	4.1	4.1			3.7	3.9	3.7	3.4
02	3.4	3.6	3.8	4.2	3.9	4.1			3.5	3.8	3.4	3.3
03	3.5	3.7	3.8	4.1	3.7	3.7			3.6	3.8	3.5	3.3
04	3.7	3.7	3.8	3.9	3.6	3.4			3.4	3.7	3.7	3.2
05	3.7	3.6	3.9	3.9	3.9	3.8			3.2	3.7	3.4	3.5
06	3.5	3.5	4.2	4.5	4.6	4.3			3.9	3.8	3.5	3.2
07	3.5	3.7	5.0	5.5	4.8	4.6			4.7	4.8	4.1	3.5
08	4.4	4.9	5.8	5.6	4.9	5.0			5.0	5.3	5.1	4.3
09	5.0	6.0	6.5	5.8	5.2	5.2			4.9	6.2	6.2	5.7
10	5.4	6.5	7.5	6.3	5.3	5.1			4.9	6.7	6.7	6.5
11	6.1	6.9	7.7	6.9	5.4	5.1			5.1	6.8	7.3	6.9
12	6.0	7.3	7.8	7.0	6.0	4.8			4.7	7.1	7.1	6.1
13	6.0	7.2	7.8	6.8	6.0	4.6			4.9	6.8	6.2	5.9
14	6.1	6.8	7.5	6.7	5.7	4.8			5.5	6.0	5.9	5.8
15	5.7	6.6	7.1	6.8	5.7	5.0			5.4	5.8	5.9	5.1
16	5.0	6.0	6.7	6.6	5.5	4.9			5.3	5.8	5.2	4.1
17	4.1	5.1	6.2	6.6	5.3	4.9			5.2	5.5	4.1	3.8
18	3.5	4.2	5.3	6.5	5.3	4.8			5.3	4.9	3.5	3.1
19	3.4	3.6	4.8	6.5	5.6	5.2			5.1	4.4	3.3	3.1
20	3.4	3.5	4.3	6.3	5.6	5.5			4.9	4.1	3.2	3.1
21	3.4	3.5	4.1	5.5	5.3	5.5			4.8	4.3	3.5	3.1
22	3.4	3.5	3.8	4.8	4.7	5.0			4.5	3.8	3.4	3.1
23	3.7	3.5	3.9	4.5	4.5	4.6			4.1	3.5	3.3	3.1

Monthly Average f^oF_2 in Mc

Honshu (35.3°N, 135.0°E)

1943

Local Time	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
00	3.0	3.0	3.6	4.7	4.4	4.1	4.5	4.3	3.7	3.3	3.0	2.8
01	3.2	3.2	3.9	4.4	4.4	4.2	4.4	4.1	3.9	3.4	2.9	2.8
02	3.3	3.3	3.8	4.5	4.7	4.1	4.1	3.7	3.8	3.1	3.1	2.7
03	3.0	3.4	3.4	4.5	4.3	3.8	3.9	3.6	3.6	3.7	3.0	2.7
04	3.4	3.2	3.4	4.0	4.3	3.7	3.7	3.4	3.6	3.4	3.0	2.7
05	3.1	2.8	3.1	4.1	4.5	3.7	3.8	3.7	3.1	3.2	2.6	2.8
06	3.1	2.7	4.0	5.8	4.9	4.3	4.3	4.6	4.2	4.3	3.2	2.9
07	4.2	4.0	5.3	6.8	5.6	4.5	4.8	4.8	5.3	6.0	4.9	4.0
08	4.7	5.0	6.5	6.9	6.0	5.4	4.8	5.6	6.6	7.5	6.5	5.5
09	5.4	5.9	7.1	7.3	6.3	5.4	4.9	6.3	6.9	7.3	7.2	6.2
10	6.6	6.7	7.6	8.0	6.6	5.6	5.2	7.1	7.0	7.6	7.7	7.9
11	7.1	7.5	8.4	8.6	6.4	5.9	5.2	6.3	7.0	7.9	7.9	7.7
12	6.9	7.7	8.6	9.0	6.4	6.3	6.0	6.1	6.8	8.0	7.6	7.0
13	6.3	7.1	8.7	9.1	6.7	7.4	6.5	5.9	7.0	7.8	7.4	6.3
14	6.3	6.3	8.2	8.8	7.3	6.4	6.7	6.9	7.1	7.4	7.5	6.2
15	5.9	6.3	7.8	8.5	7.8	5.0	5.9	7.3	6.8	7.6	7.1	6.3
16	5.0	5.6	7.4	8.1	7.6	5.4	6.0	7.6	6.8	7.2	6.0	5.5
17	4.2	4.9	6.9	7.7	6.8	5.4	5.8	7.4	6.9	6.7	4.7	3.2
18	3.6	3.9	6.0	7.8	7.3	5.7	5.5	6.6	6.2	7.0	3.6	3.0
19	3.3	3.5	4.8	7.6	7.7	6.2	5.9	5.6	5.4	4.1	3.1	3.3
20	3.3	3.2	3.9	6.6	6.5	6.7	5.3	5.4	4.8	4.2	3.0	3.2
21	3.1	2.9	3.9	5.5	5.4	6.5	4.9	4.9	4.3	4.1	3.1	2.9
22	2.8	3.1	3.6	5.0	4.9	4.9	4.6	4.7	4.0	3.8	3.2	2.8
23	2.8	2.9	3.6	4.8	4.6	4.4	4.6	4.4	3.8	3.4	3.2	2.8

Monthly Average $f^{\circ}F_2$ in McPaulau Is. ($7.7^{\circ}N$, $134^{\circ}E$)*

1943

Local time	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
00	5.0	5.5	9.3	8.5	6.3	5.4	5.3	6.2	6.5	5.7	5.8	4.9
01	4.1	5.8	8.1	7.8	6.7	5.2	4.1	6.1	6.4	5.9	5.5	4.7
02	3.6	4.3	6.0	6.3	4.7	4.6	4.8	5.6	6.3	5.8	5.3	4.4
03	3.1	3.3	5.0	5.5	4.3	4.6	4.9	5.3	5.9	5.6	5.2	4.3
04	3.1	2.5	4.5	4.7	3.9	4.5	4.9	5.5	5.7	5.5	5.2	4.1
05	2.9	2.2	3.6	3.8	3.2	5.4	5.2	5.5	5.5	5.7	5.3	4.2
06	2.8	2.9	3.9	4.7	4.4	5.6	5.5	5.2	6.0	5.8	5.6	4.6
07	4.5	5.1	7.0	7.3	6.7	6.2	6.1	6.2	6.8	6.2	6.1	5.5
08	7.0	7.1	8.3	9.2	7.9	7.6	7.1	7.3	7.5	7.2	7.2	7.2
09	7.5	7.6	9.2	10.0	8.0	8.0	7.6	6.6	7.3	7.6	7.6	7.7
10	6.8	7.4	9.3	9.1	7.4	8.1	7.8	7.7	8.0	7.8	7.8	8.0
11	6.2	7.2	8.5	8.7	7.3	8.4	8.1	8.0	8.2	8.0	8.0	8.1
12	6.4	7.4	8.5	8.7	7.4	8.5	8.3	8.3	8.3	8.1	8.2	8.4
13	6.8	7.6	8.6	9.1	7.7	8.3	8.5	8.3	8.4	8.5	8.4	8.2
14	7.0	8.0	9.4	9.0	8.0	8.3	8.5	8.4	8.5	8.5	8.4	8.4
15	7.5	8.9	10.1	10.0	7.9	8.0	8.5	8.5	8.7	8.6	8.4	8.5
16	7.8	8.4	10.5	10.5	8.3	7.9	8.3	8.4	8.8	8.2	8.3	8.1
17	8.1	8.2	10.2	10.6	8.0	7.9	7.8	8.2	8.7	8.1	8.0	8.0
18	8.1	7.2	10.2	10.5	8.0	7.8	7.1	7.8	8.3	7.7	7.6	7.5
19	7.7	7.5	9.4	10.2	8.5	7.2	6.8	7.4	7.8	7.3	7.4	7.0
20	7.6	7.2	8.9	10.0	7.8	6.9	6.0	7.0	7.3	7.1	7.1	6.1
21	6.7	6.9	9.6	10.3	7.1	6.6	5.9	6.5	7.5	6.7	6.6	6.6
22	5.8	7.1	9.2	9.4	6.4	6.2	5.6	6.2	6.8	6.4	6.3	5.1
23	5.3	6.3	9.5	9.2	6.0	5.8	5.3	6.2	7.1	6.0	6.0	5.1

*June-December doubtful.